

World Federation of Pediatric Imaging



Executive Summary: Strategic Framework 2012

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www.wfpiweb.org

Background

Diagnostic imaging services in modern medical settings have evolved enormously in recent decades, but **even state of the art healthcare can overlook the specificities of pediatric imaging**. Imaging children calls for understanding the unique needs of the patient and family; equipment, procedures, staff and radiation exposure must be adapted accordingly. Subspecialty training in pediatric radiology requires years of medical school training, residency and fellowship - demands which can impose a strain on the world's most advanced care centers.

Furthermore, **organizations dedicated to pediatric imaging need to communicate better**, share knowledge and resources, and **federate to advocate for best practices and resource allocation**.

While medical practice would suggest that around 80% of diagnostic problems can be solved using "basic" X-ray and/or ultrasound examinations, **the WHO nonetheless reports that some two-thirds of the world's population have inadequate or no access to medical imaging**. Clinicians face many challenges in providing pediatric imaging services in low-resource settings: cost, access, a massive disease burden, climate, geographical dispersion, political instability and a lack of equipment, infrastructure and human resources. Appropriate policies for diagnostic imaging services are thus rarely integrated into national health plans and viewed as a priority.

Purpose

Created in 2011, the World Federation of Pediatric Imaging (WFPI) is a non-political, non-denominational and non-discriminatory organization operating for exclusively charitable, educational, scientific, research and outreach purposes. It provides an international platform for pediatric radiology organizations united to address the challenges in global pediatric imaging training and the delivery of services.

Goals

- ❖ The promotion of the status and standards of pediatric imaging and pediatric image-guided intervention for the benefit of child health worldwide.
- ❖ The advancement of internationally-driven education and/or research in pediatric imaging and pediatric image-guided intervention.
- ❖ The fostering of global child imaging safety and radiation protection
- ❖ The stimulation of transnational resource allocation for pediatric imaging and pediatric image-guided intervention, focusing on places with acute needs.
- ❖ The fostering of opportunities for communication and collaboration between pediatric imaging practitioners across nations.
- ❖ Collaboration with global health organizations for the dissemination of best practices in pediatric imaging and pediatric image-guided intervention and

appropriate imaging guidelines.

Structure and governance

The WFPI is composed of pediatric imaging organizations and its governing Council includes representation from North America, Europe, South America and Asia-Pacific (the SPR, ESPR, SLARP and AOSPR are the founding societies). To ensure the WFPI's global reach, it is open to other regional societies such as Africa and the Middle East and to national and supranational organizations.

The WFPI's approach

WFPI representatives from around the world will **lead the organization into global forums** to highlight the importance of imaging in disease diagnosis in children everywhere and the need for **physicians and physicists with special knowledge in pediatrics to diagnose correctly, efficiently and safely. Their advocacy will raise awareness** on the sub-speciality's practices, the education and training it requires, resource allocation and patient safety **to shape future policy and practice.**

In low-resource countries, the WFPI can also make a contribution **to alleviating the shortage of pediatric imaging providers.** Understanding the limitations of telemedicine, the WFPI plans to **join forces** with the initiatives of established organizations to secure **viable, sustainable** working environments, which also **avoids unnecessary duplication** amongst imaging partners.

Working Avenues

1. Communication and collaboration between pediatric imaging practitioners, via their organizations

Through:

- The WFPI membership network: regional, supranational and national societies,
- WFPI committees and working groups,
- WFPI projects,
- The WFPI website (www.wfpiweb.org),
- Meetings and courses.

2. Advocating for appropriate practices and resource allocation for children

Looking for active involvement with global organizations and initiatives offering advocacy platforms and/or working groups in imaging care, the WFPI will set up a committee to spearhead these efforts. Projects include:

i/ Major radiology societies

The WFPI will support and reinforce the international efforts of major radiology societies with an expanded pediatric focus. When possible, permanent WFPI engagement will be assured via seats on working groups. Involvement in the American College of Radiology's education/outreach work in Haiti will be developed and the WFPI has joined the International Society of Radiology's (IRS) tuberculosis steering committee. Alliances with the Radiological Society of North America, the European Society of Radiology, the Inter-American College of Radiology and the IRS will be explored.

ii/ Other global partnerships: IAEA, WHO and others

Since the WFPI's launch in 2011, contacts have been initiated with the International Atomic Energy Agency (IAEA), the World Health Organization (WHO) and the World Federation for Ultrasound in Medicine and Biology (WFUMB). This network will continue to grow, with advocacy efforts reflecting regional disparities.

iii/ Regional and national imaging societies and health authorities

The WFPI will support and reinforce the advocacy efforts of its regional and national member

organizations with their regional and national counterparts and respective health authorities.

3. Education

As levels of specialist education differ within and between nations, the WFPI will whenever possible divide its educational output into beginner, intermediate and advanced levels. Projects include:

i/ The WFPI education committee

This committee is focused on online educational content for the WFPI's new website and is currently evaluating existing online content, basic pediatric imaging needs and association with international partners. The WFPI will draw upon similar endeavors and address the training of non-radiologists, and general and pediatric radiologists. Assessment tools, competencies and curriculum will help standardize the quality of worldwide advanced pediatric radiology training.

ii/ The Pediatric Radiology journal and GO RAD (Global Outreach-Radiology)

Pending publisher consent (Springer), the managing editors of the Pediatric Radiology journal have been invited to join the ISR initiative 'GO RAD', a consortium of 30+ society journals offering a vehicle for worldwide dissemination of peer-reviewed, open-access, published educational and scientific content selected for radiologists and related healthcare providers working in medically underserved areas.

iii/ Courses and meetings

Through its network and external alliances, the WFPI aims to facilitate course and meeting attendance. But this will generate major costs if physical presence is required, so the WFPI will support only the most viable sustainable approaches, largely online. Concerns to address include infrastructure, interactive capacity, international time lines and intellectual property. Yet despite the barriers, worldwide webinar use is on the rise. The aim: trans-continental coverage for maximum numbers, as opposed to travel costs for brief visits that do not result in sustainable improvements. The WFPI will also promote virtual initiatives already underway.

4. Radiation safety and protection

Adopting a step-by-step approach, the WFPI aims to raise awareness on patient safety, justification and optimization and promote recommendations and guidelines. A patient safety committee will be set up to coordinate with the IAEA, Image Gently, the ESPR's task forces and the global network described in section 2. For lower resource settings, the WHO has already outlined a basic operational framework offering general guidelines on radiology policy, quality and safety. The WFPI aims to endorse and expand such frameworks for pediatric imaging use, incorporating its efforts into a wider public health drive.

5. Outreach and training in lower resource settings

The WFPI's approach to outreach and training differs according to the region, reflecting the diversity in imaging care. In rural settings where alternative diagnostic tools are non-existent or inadequate, assistance via radiograph-reporting can prove life-saving. And where adequate equipment and/or medical teams do exist, they may need further training and engineering support to provide sustainable imaging care. Projects include:

i/ Visiting professor programs

The RSNA, ACR, ESR and Inter-American College of Radiology (CIR) all run international visiting professor programs. The WFPI hopes to secure a seat on the RSNA's new International Committee and collaborate on its pediatric imaging approach – through visiting professors, online pre-visit training modules, etc. Similar ties will be explored with the ACR, ESR and CIR.

ii/ Department of Radiology, Faculty of Medicine, Addis Ababa University/ Radiological Society of Ethiopia (RSE)/The Children's Hospital of Philadelphia, (CHOP), University of Pennsylvania, USA/South African Society of Pediatric Imaging (SASPI), South Africa

The Department of Radiology, Addis Ababa University and the RSE have been in partnership with CHOP for 4 years in an outreach program aiming to introduce a pediatric radiology curriculum and

initial training for the country's first pediatric radiologists. The program is now looking to expand meaningful collaboration with the SASPI and establish an educational USA-Ethiopia-South Africa axis. Licensing issues permitting, the first training exchange is planned for December 2012. The WFPI aims to support and learn from this cross-border experience, with the objective of duplicating it elsewhere.

iii/ Médecins sans Frontières/Doctors without Borders (MSF)

The WFPI is collaborating with MSF to provide pediatric imaging telerporters to support MSF's global telemedicine network using platforms and technology already set up in project sites. Initial WFPI volunteer work includes reporting on pediatric chest radiographs for TB diagnosis at MSF's project in Tajikistan. Contacts have been initiated regarding MSF's future 250-bed hospital in Haiti where the WFPI could provide telerreporting and training and education opportunities for Haitian on-site imaging providers.

iv/ Khyalitsha, Western Cape, South Africa

Whilst collaboration with MSF gains momentum, a WFPI/SASPI team of pediatric radiologist telerporters is running a telereading "trial" with a new Ministry of Health hospital in South Africa. Hosting new digital equipment but no PACs system as yet, the team needs short-term telereading support. Providing such interim support to new facilities could become a regular role for the WFPI.

v/The UERJ Telehealth Center, State University, Rio de Janeiro, Brazil

Similar to other health initiatives in Brazil, the Brazilian government, via the State University of Rio de Janeiro, has responded to the vastness of the country and health care disparities by developing a virtual telemedicine approach. The pediatric radiology component has been successfully implemented locally and the WFPI will be playing a role in its further international expansion.

vi/ Asia

A project has yet to be identified in Asia; a call for proposals has been issued

vii/ Eastern Europe

The ESPR is expanding its support for Eastern Europe with the WFPI's backing.

viii/ UNICEF, other organizations

Partnering with the United Nations Children's Fund is a logical step for the WFPI and contacts are being explored through UNICEF France. A partnership could include the introduction of imaging components in current mother and child health projects, particularly ultrasound. Connections have also been initiated with other organizations providing imaging aid (Rotary, Imaging the World) to explore telereading support, pediatric imaging protocols and training.

6. Research

Pediatric radiology research poses far more challenges than adult or even pediatric medical research in general: low patient numbers, high ethical demands, little industry and pharmaceutical support, lack of research personnel and increasing demands in justification, optimisation and more particularly radiation protection and safety. Yet there is an urgent need for multidisciplinary, multi-institutional, multinational and prospective research on highly relevant topics impacting cost effectiveness, life quality and society. Projects include:

i/ Optimising WFPI network use for research

Members will be encouraged to use the WFPI network to identify research opportunities and multi-center collaboration; the WFPI will act as a mediator between institutions.

ii/ Proposing research

The WFPI aspires to propose research on agreed upon general and specific topics (TB, AIDS, etc.) steered by experts within the WFPI to the benefit of children worldwide.

7. Information

The WFPI website aims to compile information banks on other imaging initiatives, equipment donation sites, grants, scholarships, meetings and useful links.